

## REMARKS

### **(A) STATUS OF THE APPLICATION**

Applicants thank the Examiner for the explanation of rejections in the Non-Final Office Action dated June 05, 2007.

#### **(I) DISPOSITION OF CLAIMS**

- (i) Claims 1-13 are pending in the application.
- (ii) Claims 1-13 are rejected under 35 U.S.C. § 103(a).

#### **(II) APPLICANTS' ACTION**

- (ii) Applicants respond to the above rejections.

### **(B) RESPONSE TO REJECTION UNDER 35 U.S.C. § 103(A)—CLAIMS 1-13**

The Examiner has rejected Claims 1-5 and 7-13 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,892,714 to Sampson, *et al.* (*hereinafter* "Sampson"). Furthermore, the Examiner has rejected Claim 6 under 35 U.S.C. § 103(a) as being obvious over Sampson in view of U.S. Patent No. 6,130,286 to Thomas, *et al.* (*hereinafter* "Thomas").

The main differences between Sampson and Claim 1 of the present invention are as follows:

First, Sampson does not disclose cyclo-aliphatic (meth)acrylic acid esters (component b). The unsaturated monomer with part formula  $\text{CH}_2=\text{C}<$  can be any radically polymerizable unsaturated monomer.

Second, the acrylic copolymers used as copolymer A) in the present invention have hydroxyl numbers of 160-200, preferably of 170-190. The unmodified acrylic copolymers (without caprolactone) have hydroxyl numbers of 170 – 280. The unmodified acrylic copolymers of Sampson, however, has hydroxyl numbers of at least 20 and below 250, in particular of 30 – 100. In other words, a very broad

range is disclosed and the preferred range is outside the range claimed in the present invention. A specific hydroxyl number for the final modified copolymer is not disclosed in Sampson, however according to the mentioned ranges for the unmodified copolymer, the final modified copolymer should have also hydroxyl numbers within a very broad range or within a preferred range that is clearly below the range of 160-200 claimed in the present invention. The present invention just teaches to use acrylic copolymers as component A) with a high hydroxyl number of a very restricted range.

Applicants also submit that Claims 2-5 and 7-13 are directly or indirectly dependent on Claim 1. Because all elements and limitations of Claim 1 are disclosed in Sampson, dependent claims of Claim 1 are not obvious over said reference.

In light of above comments, Applicants submit that a *prima facie* case of obviousness is not established for Claims 1-5 and 7-13.

In regards to Claim 6, Thomas does not specifically teach using cyclo-alkyl (meth)acrylates to improve drying properties and scratch resistance. In addition, Claim 6 is dependent on Claim 1. All arguments relating to Claim 1 above are incorporated herein by reference.

Although Thomas used cyclo-alkyl (meth)acrylates as monomers in its examples, its general teaching is directed to use acrylic copolymers prepared by using reaction products of hydroxyl-functional monomers with lactones as monomers, and only optionally in combination with cyclo-alkyl (meth)acrylates. However, the teaching of the present invention teaches away from the teaching of Thomas. The present invention teaches to prepare a hydroxyl-functional acrylic copolymer in a first step and to modify the copolymer in a second step with lactones. In other words, the main difference with Thomas is the detailed modification of the hydroxyl groups of the acrylic copolymer with lactones. Accordingly, comparative example 6 of the present invention and the corresponding comparative paint example prove that the use of acrylic copolymers prepared by polymerization of reaction products of hydroxyl-functional monomers with lactones in combination with cyclo-alkyl (meth)acrylates lead to coatings with worse drying performance (tape free initial) and

insufficient scratch resistance, compared with acrylic copolymers prepared according to the present invention.

Applicants also note that the acrylic copolymers of Thomas must have hydroxyl numbers from 40 to 110, preferably from 60 to 95, which is much below the range of 160 to 200 as claimed in the present invention.

Finally there is no motivation to combine the teachings of Sampson and Thomas. Sampson is not directed to two-component coating compositions with improved drying performance and scratch resistance.

Therefore Claim 6 of the present invention is not obvious over Sampson in view of Thomas.

**CONCLUSION**

In view of the above remarks, Applicants respectfully submit that the stated grounds of rejection have been properly traversed, accommodated, or rendered moot and that a complete response has been made to the Non-Final Office Action dated June, 2007.


Therefore, Applicants believe that the application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited.

If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the undersigned at the number provided.


Applicants believe that a that a one-month extension of time is required under 37 C.F.R. § 1.136(a). Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours & Co.).

RESPECTFULLY SUBMITTED,

DATE: OCTOBER 05, 2007

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